RECEIVED



RAW SEQUENCE LISTING

4 <110> APPLICANT: Laus, Reiner

PATENT APPLICATION: US/09/461,684C

DATE: 06/03/2003 TIME: 11:17:08

Input Set : A:\57636-8020.US00-corr2-SEQLIST.TXT
Output Set: N:\CRF4\06032003\I461684C.raw

```
5
        Hakim, Itzhak
        Vidovic, Damir
6
8 <120> TITLE OF INVENTION: Compositions and Methods for Enhancement
        of Major Histocompatibility Complex Class I Restricted
9
        Antigen Presentation
10
13 <130> FILE REFERENCE: 57636-8020.US00
15 <140> CURRENT APPLICATION NUMBER: US 09/461,684C
16 <141> CURRENT FILING DATE: 1999-12-14
18 <150> PRIOR APPLICATION NUMBER: US 60/112,324
19 <151> PRIOR FILING DATE: 1998-12-14
21 <160> NUMBER OF SEQ ID NOS: 10
23 <170> SOFTWARE: FastSEQ for Windows Version 4.0
                                                        ENTERED
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 21
27 <212> TYPE: PRT
28 <213> ORGANISM: Artificial Sequence
30 <220> FEATURE:
31 <223> OTHER INFORMATION: pK
33 <400> SEQUENCE: 1
35 1
36 Lys Lys Lys Lys
              20
37
39 <210> SEQ ID NO: 2
40 <211> LENGTH: 25
41 <212> TYPE: PRT
42 <213> ORGANISM: Artificial Sequence
44 <220> FEATURE:
45 <223> OTHER INFORMATION: pEA
47 <400> SEQUENCE: 2
48 Cys Glu Ala Ala Ala Ala Glu Ala Ala Ala Ala Ala Glu Ala Ala
                  5
49 1
50 Ala Ala Ala Glu Ala Ala Ala Ala Ala
              20
53 <210> SEQ ID NO: 3
54 <211> LENGTH: 24
55 <212> TYPE: PRT
56 <213> ORGANISM: Artificial Sequence
58 <220> FEATURE:
59 <223> OTHER INFORMATION: HA
61 <400> SEQUENCE: 3
62 Cys Gly Leu Phe Gly Ala Ile Ala Gly Phe Ile Glu Asn Gly Trp Glu
```

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Input Set: A:\57636-8020.US00-corr2-SEQLIST.TXT
                  Output Set: N:\CRF4\06032003\I461684C.raw
                                                         15
    63 1
    64 Gly Met Ile Asp Gly Trp Tyr Gly
                 20
    67 <210> SEQ ID NO: 4
    68 <211> LENGTH: 45
    69' <212> TYPE: PRT
    70 <213> ORGANISM: Artificial Sequence
    72 <220> FEATURE:
    73 <223> OTHER INFORMATION: tandem pEA/pK conjugate
    75 <400> SEQUENCE: 4
    76 Cys Glu Ala Ala Ala Ala Glu Ala Ala Ala Ala Ala Glu Ala Ala
                      5
    78 Ala Ala Ala Glu Ala Ala Ala Ala Lys Lys Lys Lys Lys Lys Lys
                 20
                                   25
    35
                            . 40
    83 <210> SEQ ID NO: 5
    84 <211> LENGTH: 44
    85 <212> TYPE: PRT
    86 <213> ORGANISM: Artificial Sequence
    88 <220> FEATURE:
    89 <223> OTHER INFORMATION: tandem HA/pK conjugate
    91 <400> SEQUENCE: 5
    92 Cys Gly Leu Phe Gly Ala Ile Ala Gly Phe Ile Glu Asn Gly Trp Glu
    94 Gly Met Ile Asp Gly Trp Tyr Gly Lys Lys Lys Lys Lys Lys Lys
                 20
    35
    99 <210> SEQ ID NO: 6
    100 <211> LENGTH: 21
    101 <212> TYPE: PRT
    102 <213> ORGANISM: Artificial Sequence
    104 <220> FEATURE:
    105 <223> OTHER INFORMATION: added peptidic sequence with a combination of lys and arg
residues, with an N-terminal cys residue
W--> 107 <221> NAME/KEY: VARIANT
    108 <222> LOCATION: (1)...(21)
    109 <223> OTHER INFORMATION: Xaa = Arg or Lys
W--> 111 <400> 6
113 1
    114 Xaa Xaa Xaa Xaa Xaa
    115
                  20
    117 <210> SEQ ID NO: 7
    118 <211> LENGTH: 20
    119 <212> TYPE: PRT
    120 <213> ORGANISM: Artificial Sequence
    122 <220> FEATURE:
    123 <223> OTHER INFORMATION: added peptidic sequence with a combination of lys and arg
residues
```

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```
Input Set: A:\57636-8020.US00-corr2-SEQLIST.TXT
                    Output Set: N:\CRF4\06032003\I461684C.raw
W--> 125 <221> NAME/KEY: VARIANT
     126 <222> LOCATION: (1)...(20)
     127 <223> OTHER INFORMATION: Xaa = Arg or Lys
W--> 129 <400> 7
131 1
     132 Xaa Xaa Xaa Xaa
     133
     135 <210> SEQ ID NO: 8
     136 <211> LENGTH: 7
     137 <212> TYPE: PRT
     138 <213> ORGANISM: Artificial Sequence
     140 <220> FEATURE:
     141 <223> OTHER INFORMATION: peptidic sequence with repeating subunits, with an N-
terminal cys residue
W--> 143 <221> NAME/KEY: VARIANT
     144 <222> LOCATION: (2)...(2)
     145 <223> OTHER INFORMATION: Xaa = Glu or Asp
W--> 147 <221> VARIANT
     148 <222> LOCATION: (3)...(7)
     149 <223> OTHER INFORMATION: Xaa = Ala, Leu, Ile, Phe, Gly, Cys, Met or Val
W--> 151 <221> VARIANT
     152 <222> LOCATION: (2)...(7)
     153 <223> OTHER INFORMATION: amino acids 2 to 7 comprise a subunit that is repeated three
or more times
W--> 155 <400> 8
W--> 156 Cys Xaa Xaa Xaa Xaa Xaa Xaa
     157 1
     159 <210> SEQ ID NO: 9
     160 <211> LENGTH: 6
     161 <212> TYPE: PRT
     162 <213> ORGANISM: Artificial Sequence
     164 <220> FEATURE:
     165 <223> OTHER INFORMATION: peptidic sequence with repeating subunits
W--> 167 <221> NAME/KEY: VARIANT
     168 <222> LOCATION: (1)...(1)
     169 <223> OTHER INFORMATION: Xaa = Glu or Asp
W--> 171 <221> VARIANT
     172 <222> LOCATION: (2)...(6)
     173 <223> OTHER INFORMATION: Xaa = Ala, Leu, Ile, Phe, Gly, Cys, Met or Val
W--> 175 <221> VARIANT
     176 <222> LOCATION: (1)...(6)
     177 <223> OTHER INFORMATION: amino acids 1 to 6 comprise a subunit that is repeated three
or more times
W--> 179 < 400> 9
W--> 180 Xaa Xaa Xaa Xaa Xaa Xaa
     181 1
     183 <210> SEQ ID NO: 10
     184 <211> LENGTH: 8
     185 <212> TYPE: PRT
     186 <213> ORGANISM: Artificial Sequence
     188 <220> FEATURE:
```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/461,684C

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Input Set : A:\57636-8020.US00-corr2-SEQLIST.TXT

Output Set: N:\CRF4\06032003\I461684C.raw

189 <223> OTHER INFORMATION: OVA- derived peptide (OVA 257-264), recognized by the T cell hybridoma B3Z. (Jameson et al., 1993, J. Exp. Med. 177: 1541)

191 <400> SEQUENCE: 10

192 Ser Ile Ile Asn Phe Glu Lys Leu

193 1 5

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/461,684C

DATE: 06/03/2003 TIME: 11:17:09

Input Set : A:\57636-8020.US00-corr2-SEQLIST.TXT

Output Set: N:\CRF4\06032003\I461684C.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:6; Xaa Pos. 2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21 Seq#:7; Xaa Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20

Seq#:8; Xaa Pos. 2,3,4,5,6,7 -- Seq#:9; Xaa Pos. 1,2,3,4,5,6

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:6; Line(s) 105
Seq#:8; Line(s) 153
Seq#:9; Line(s) 177
Seq#:10; Line(s) 189

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/461,684C TIME: 11:17:09

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Input Set : A:\57636-8020.US00-corr2-SEQLIST.TXT

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L:107 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order! L:111 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:6 L:112 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0 M:341 Repeated in SeqNo=6 L:125 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order! L:129 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7 L:130 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0 M:341 Repeated in SeqNo=7 L:143 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order! L:147 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8 L:151 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8 L:155 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8 L:156 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0 L:167 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order! L:171 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:9 L:175 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:9 L:179 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:9 L:180 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0